Network Working Group
Request for Comments: 884

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TELNET TERMINAL TYPE OPTION

This RFC specifies a standard for the ARPA Internet community. Hosts on the ARPA Internet that exchange terminal type information within the Telnet protocol are expected to adopt and implement this standard.

1. Command Name and Code

   TERMINAL-TYPE 24

2. Command Meanings

   IAC WILL TERMINAL-TYPE

      Sender is willing to send terminal type information in a subsequent sub-negotiation

   IAC DO TERMINAL-TYPE

      Sender is willing to receive terminal type information in a subsequent sub-negotiation

   IAC DON'T TERMINAL-TYPE

      Sender refuses to accept terminal type information

   IAC WON'T TERMINAL-TYPE

      Sender refuses to send terminal type information

   IAC SB TERMINAL-TYPE SEND IAC SE

      Sender requests receiver to transmit his (the receiver's) terminal type. The code for SEND is 1. (See below.)

   IAC SB TERMINAL-TYPE IS ... IAC SE

      Sender is stating the name of his terminal type. The code for IS is 0. (See below.)

3. Default

DON'T TERMINAL-TYPE

WON'T TERMINAL-TYPE

Terminal type information will not be exchanged.

4. Motivation for the Option

This option allows a telnet server to determine the type of terminal connected to a user telnet program. The transmission of such information does not immediately imply any change of processing. However, the information may be passed to a process, which may alter the data it sends to suit the particular characteristics of the terminal. For example, some operating systems have a terminal driver that accepts a code indicating the type of terminal being driven. Using the TERMINAL TYPE and BINARY options, a telnet server program on such a system could arrange to have terminals driven as if they were directly connected, including such special functions as cursor addressing, multiple colors, etc., not included in the Network Virtual Terminal specification. This option fits into the normal structure of TELNET options by deferring the actual transfer of status information to the SB command.

5. Description of the Option

WILL and DO are used only to obtain and grant permission for future discussion. The actual exchange of status information occurs within option subcommands (IAC SB TERMINAL-TYPE...).

Once the two hosts have exchanged a WILL and a DO, the sender of the WILL TERMINAL-TYPE is free to transmit type information, spontaneously or in response to a request from the sender of the DO. At worst, this may lead to transmitting the information twice. Only the sender of the DO may send requests (IAC SB TERMINAL-TYPE SEND IAC SE) and only the sender of the WILL may transmit actual type information (within an IAC SB TERMINAL-TYPE IS ... IAC SE command).

The terminal type information is an NVT ASCII string. Within this string, upper and lower case are considered equivalent. A few terminal type names useful in the context of IBM systems are listed below. It is anticipated that additional names will be added in the future. The complete list of valid terminal types will be found in the latest "Assigned Numbers" RFC.

The following is an example of use of the option:

Host1: IAC DO TERMINAL-TYPE

Host2: IAC WILL TERMINAL-TYPE

(Host2 is now free to send status information at any time. Solicitations from Host1 are NOT necessary. This should not produce any dangerous race conditions. At worst, two IS's will be sent.)

Host1 (perhaps): IAC SB TERMINAL-TYPE SEND IAC SE

Host2:

IAC SB TERMINAL-TYPE IS IBM-3278-2 IAC SE

6. Implementation Suggestions

The "terminal type" information may be any NVT ASCII string meaningful to both ends of the negotiation. The list of suggestions below is intended to minimize confusion caused by alternative "spellings" of the terminal type. For example, confusion would arise if one party were to call a terminal "IBM3278-2" while the other called it "IBM-3278/2". There is no negative acknowledgement for a terminal type that is not understood, but certain other options (such as switching to BINARY mode) may be refused if a valid terminal type name has not been specified. In some cases, a particular terminal may be known by more than one name, for example a specific type and a more generic type. In such cases, the sender of the TERMINAL-TYPE IS command should reply to successive TERMINAL-TYPE SEND commands with the various names, from most to least specific. In this way, a telnet server that does not understand the first response can prompt for alternatives. However, it should cease sending TERMINAL-TYPE SEND commands after receiving the same response two consecutive times. Similarly, a sender should indicate it has sent all available names by repeating the last one sent.

Here are a few terminal types useful in the IBM environment:

IBM-3275-2
IBM-3276-2
IBM-3276-3
IBM-3276-4
IBM-3277-2
IBM-3278-2
IBM-3278-3
IBM-3278-4

IBM-3278-5
IBM-3279-2
IBM-3279-3

Here are a few terminal types useful in the TOPS20 environment:

ANN-ARBOR-AMBASSADOR
CONCEPT-100
DATAMEDIA-2500
DEC-LA30
DEC-VT100
DEC-VT52
EXECUPORT-4000
HAZELTINE-1500
HP-2621
HP-2640
HP-2645A
HP-2649
NETWORK-VIRTUAL-TERMINAL
TEKTRONIX-4025
TELERAY-1061
TELETYPE-33
TELETYPE-37
TELEVIDEO-950
TERMINET-300
TI-700
ZENITH-H19

Here are a few terminal types used in the Unix environment:

ADDS-CONSUL-980
ADDS-REGENT-200
ANDERSON-JACOBSON-832
ANN-ARBOR-AMBASSADOR
BITGRAPH
CDI-1203
COMPUCOLOR-II
CONCEPT-100
DATA-GENERAL-6053
DATAGRAPHIX-132A
DATAMEDIA-3045A
DATAPOINT-3360
DEC-DECWRITER-II
DEC-GT40
DEC-VT52
DELTA-DATA-5000
DIABLO-1620
EXECUPORT-4000

GENERAL-TERMINAL-100A
HAZELTINE-1500
HAZELTINE-2000
HP-2621
HP-2640A
HP-2645
HP-2649A
IBM-3101
INFOTON-100
LSI-ADM-3
MICROTERM-ACT-V
MICROTERM-MIME-2
NETWORK-VIRTUAL-TERMINAL
PERKIN-ELMER-1100
PLASMA-PANEL
SUPERBEE-III-M
TEKTRONIX-4014
TELERAY-3700
TELETYPE-33
TELETYPE-37
TELEVIDEO-912
TERMINET-300
TI-700
TI-733
TI-745
VISUAL-200
XEROX-1720
ZENITH-H19
ZENTEC-30

The type "UNKNOWN" should be used if the type of the terminal is unknown or unlikely to be recognized by the other party.

The complete and up-to-date list will be maintained in the "Assigned Numbers".